

The Way to Build



The House to Last



SOUTHERN PINE ASSOCIATION
NEW ORLEANS

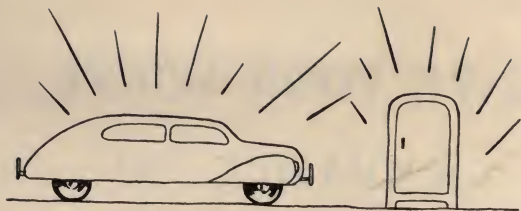
Digitized by ASSOCIATION FOR PRESERVATION TECHNOLOGY, www.apti.org for the
BUILDING TECHNOLOGY HERITAGE LIBRARY
<https://archive.org/details/buildingtechnologyheritagelibrary>
From the collection of Alan O'Bright

8 -
39885

GIVE YOUR HOUSE
A CHANCE TO
LIVE



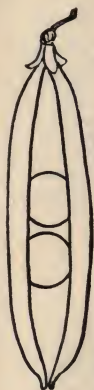
THE LIFE-EXPECTANCY OF YOUR HOUSE
—AND ITS RE-SALE VALUE
ARE DETERMINED AT THE TIME
IT IS BUILT.



WHEN YOU BUY A CAR -
OR A REFRIGERATOR
YOU EXPECT DEPENDABLE
MATERIALS, SUPERIOR
WORKMANSHIP AND
DURABLE PERFORMANCE



*Why not demand the same
when you build your home?*



AS MUCH ALIKE AS

**TWO PEAS
IN A POD**

but

**DON'T JUDGE THEM BY
OUTWARD APPEARANCES
ALONE**

One could be of flimsy construction . . . the other a well-built substantial structure. Without knowledge of upkeep costs in a home, it is easy to misjudge the relative merits and values of houses.

This book presents graphic illustrations of the important features of a well-built house. Study these illustrations before you build. They will be of real help to you in securing a home of lasting satisfaction.



A PERMANENT *Investment*

That's the objective of most folks when they build a home. Whether your home costs \$4,000 or \$40,000, there are certain fundamental requirements that should be provided for. The backbone of every home is the structural framework. The strength and permanence of the building, the comfort of the occupants and minimum maintenance costs over a long period of time are determined by the framework.

The many fine old lumber homes still standing throughout the country today, after generations of service, reflect the results which may be obtained through the use of quality lumber and proper principles of construction.

Refinements and conveniences may be added later, but the soundness and permanence of the entire structure depend upon—

QUALITY LUMBER
AND
CORRECT CONSTRUCTION

Quality

LUMBER

No part of your home deserves more consideration than the selection of the material for the structural part—the framework of your home.

* * * *

Strength
Stiffness
Permanence
Low Cost

Ease of Erection
Economy
Versatility
Comfort

These requirements for a home framing material are most effectively combined in lumber.

* * * *

Proper seasoning.
Careful manufacturing to uniform size.
Accurate grading.

These are the qualities required in lumber for home construction.

* * * *

A sound structure requires the use of quality lumber.

* * * *

The Standard Grades of Southern Pine recommended for homes include a definite limitation of moisture content. This means that Southern Pine lumber, conforming to the grading rules, is properly seasoned for the use intended. Responsible lumber dealers, who recognize the importance of the quality factors in framing lumber, are in a position to furnish Southern Pine which meets the needs of the home builder.

Seasoned LUMBER is important



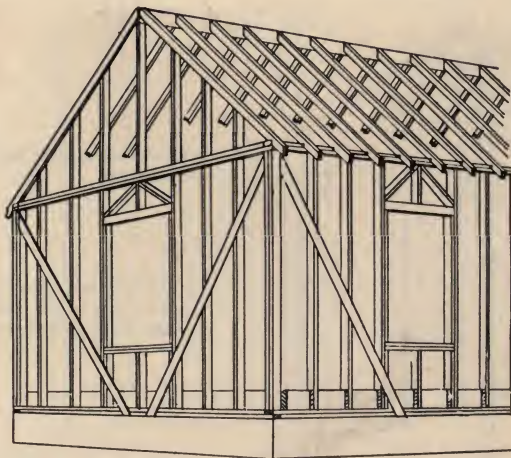
Lumber, as it comes from the tree, is literally saturated with water. The process of removing the excess water is known as seasoning. It may be done by air-drying over a long period of time, or by kiln-drying. As the moisture is removed, the wood shrinks. The lumber is thus "prepared" for use. When "green" or unseasoned lumber is used, the shrinkage takes place in the building and may cause cracks in the plaster and openings in joints. Hence it can be seen that drying should take place **before** the lumber is used . . . not afterward.

Great care is taken by responsible producers of Southern Pine to see that the moisture in the wood is reduced to a proper point before the lumber reaches its final stage of manufacture. Scientific instruments enable the manufacturer to determine when the lumber is correctly seasoned.

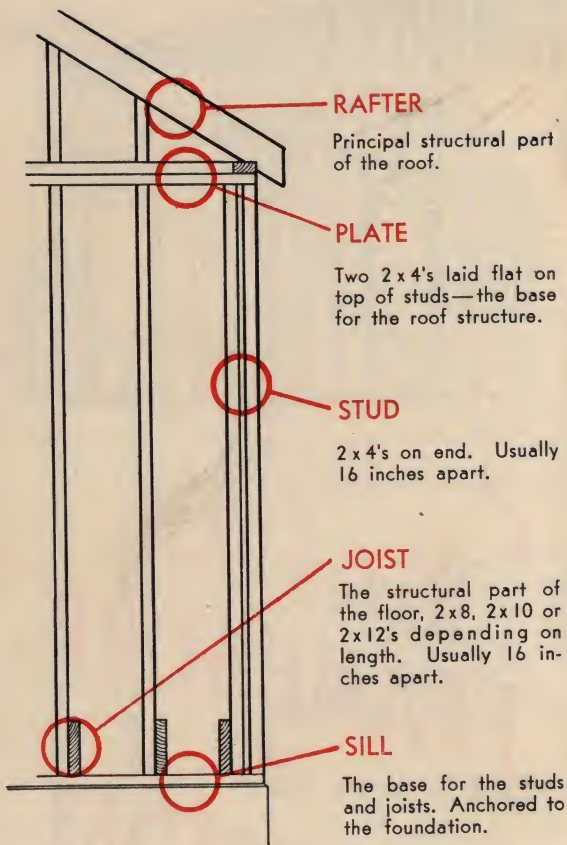
DID YOU KNOW

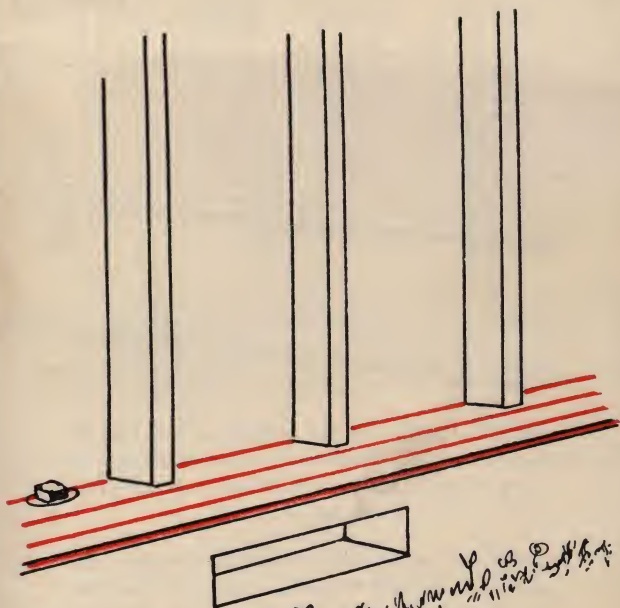
that a gallon of water must be removed from a single floor joist for the ordinary sized room before it is ready for the final manufacturing operation?

CONSTRUCTION DETAILS

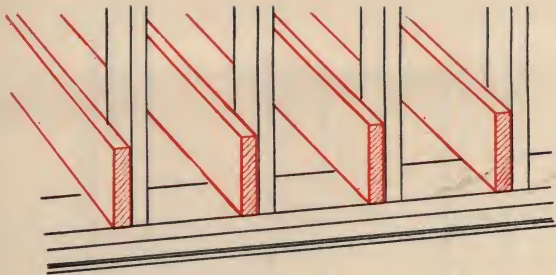


↗ Watch that
FRAMEWORK
-it's
VERY IMPORTANT





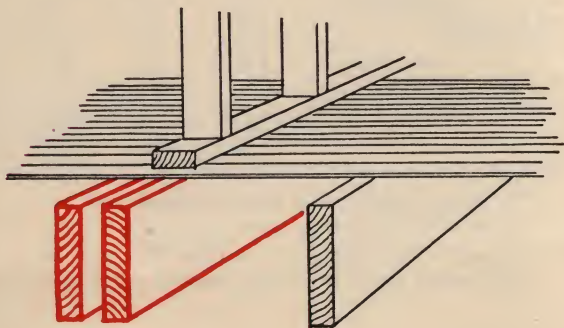
SILLS rest on the foundation and support the walls and first floor joists. They should be anchored to the foundation by bolts. A 2" x 6" sill is recommended for a one-story house and two 2" x 6"'s for a two-story house. In placing the sills, mortar is first spread on the foundation and the sill tapped lightly to an even bearing.

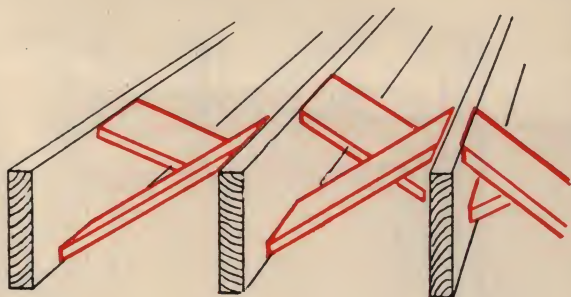


See also page 10 for details of floor joist construction and the use of solid bridging.

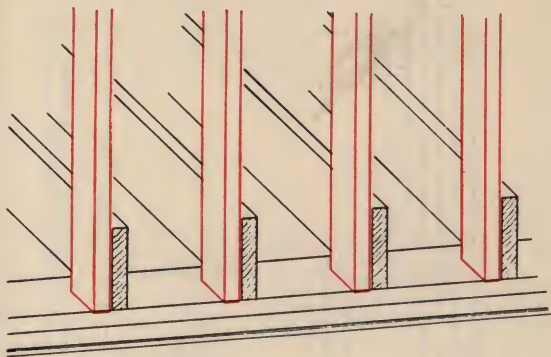
FLOOR JOISTS are the most important part of the frame. They support the floor and entire contents of the building. They should have sufficient stiffness so as not to be "springy".

JOISTS under partitions should be doubled and separated by solid bridging. When the partition supports a load above, it is necessary to use three joists.



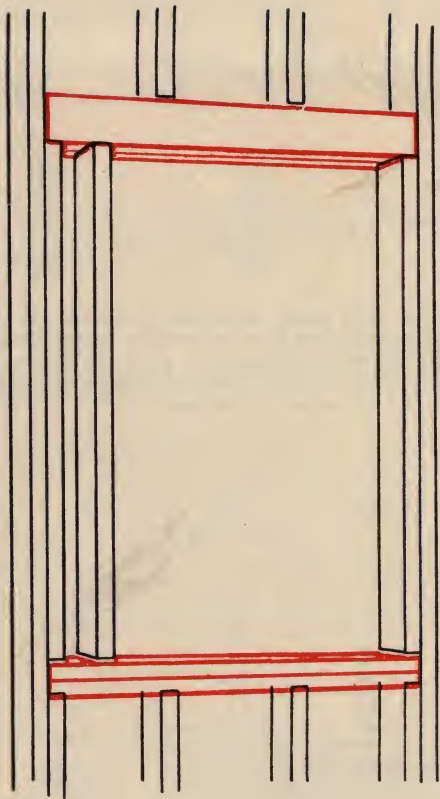


Floor joists should be braced to increase the stiffness of the floor by small members called "**CROSS-BRIDGING**". Pieces of 1" x 3" or 1" x 4" are used and double nailed to each end. Rows of bridging should be placed at intervals of 8'.

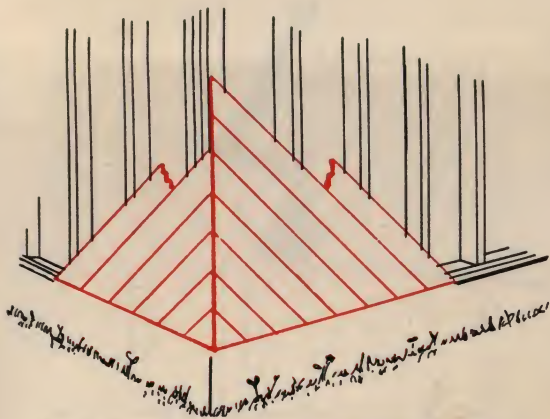


ceiling joists should be doubled at corners and sides of openings

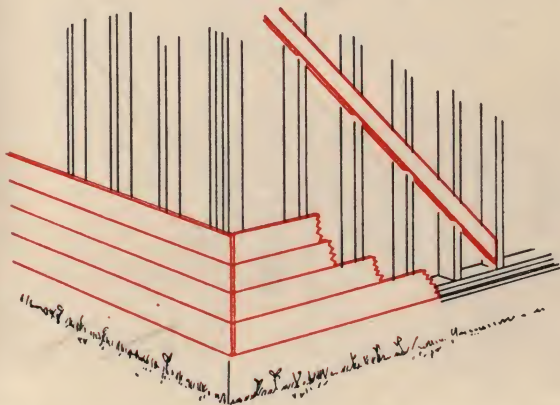
STUDS support the ceiling and roof structure and provide a base for the wall covering. They are usually 2 x 4's. They should be doubled at sides of openings and tripled at corners.



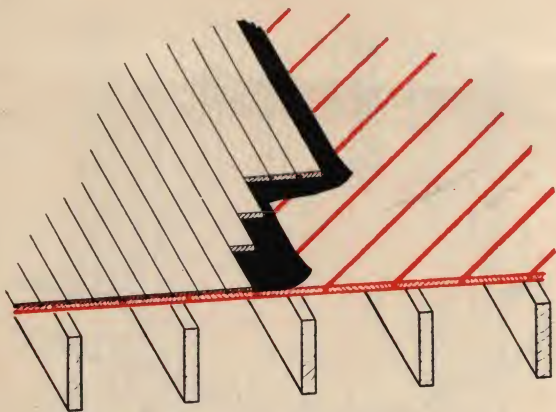
When studs are cut for windows or doors, the portion above the opening must be supported by a **HEADER**. This may be two pieces of 2" x 4", placed on edge for small openings or larger pieces or trusses for wider openings. **SILLS** are placed at the bottom of the opening.



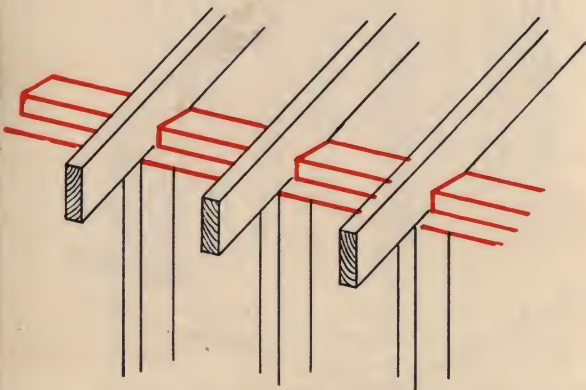
SHEATHING insulates and strengthens the wall and is a base for finish siding. Sheathing placed diagonally like this is strongest.



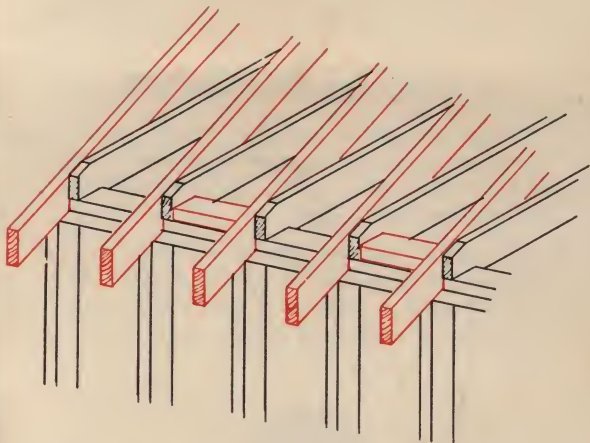
SHEATHING placed horizontally like this is adequate in most cases, but a diagonal **BRACE** of 1" x 4" let in to face of studs should be added.



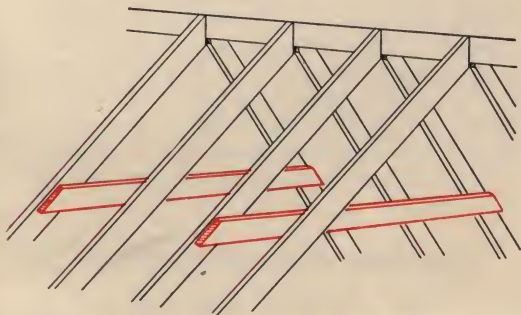
SUBFLOOR adds insulation and strength to a floor, and helps deaden sound. It is strongest when placed diagonally which also permits finish floor to be laid in either direction. A building paper or floor felt should be placed over the subfloor.



The **PLATE** on top of the studs supports the roof and should be two pieces of 2" x 4" overlapped at all joints.



Where ceiling joists are spaced the same as rafters, they should be solidly nailed to **RAFTERS**. The roof should be anchored to side walls. One method of doing this is illustrated, and consists of 2" x 4" **ANCHOR BLOCKS** fitted alternately between rafters and securely nailed to rafters and plates.



COLLAR BEAMS strengthen the roof and are placed across the rafters at about the middle of the attic height of every second rafter.

A WORD ABOUT INSULATION

Wood is a natural insulation material . . . a non-conductor of heat. Outer temperatures . . . whether hot or cold . . . find it extremely difficult to penetrate walls of wood.

The cellular structure of wood provides it with efficient insulating qualities. Wood sheathing on the wall makes a home more comfortable, more economical to heat and greatly increases the strength.



Southern Pine Lumber . . . SPA Trade-Marked and Grade-Marked . . . is a proven home building material. It fills practically every requirement for good residential construction . . . from the foundation up and throughout the interior. SPA Trade-Marked and Grade-Marked lumber is seasoned to definite moisture content limitations. This means DRY, or pre-shrunk lumber that "stays put" once it is set in place.

SOUTHERN PINE ASSOCIATION

NEW ORLEANS 4, LOUISIANA

